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(54) HERBICIDE

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(57) Abstract:

PURPOSE: To provide a herbicide containing a specific compound as a main active component, capable of killing a wide variety of weeds such as annual weeds and perennial weeds or suppressing the growth of the weeds by chlorosis, exhibiting excellent herbicidal activity and useful for the control of weeds in uncultivated land.

CONSTITUTION: The objective herbicide contains the N-substituted alkylamine phosphoric acid derivative of formula I ( $R_1$  is H, OH, lower alkyl or phenyl;  $R_2$  and  $R_4$  are H or lower alkyl;  $R_3$  is H or formyl; n is 1W5), e.g. 3-(N-formyl- N-hydroxyamino)propylphosphonic acid isopropylamine salt, etc. as an active component. The compound of formula I wherein  $R_1$  is OH,  $R_2$  and  $R_4$  are H,  $R_3$  is formyl and n is 3 can be prepared e.g. by reacting the compound of formula II with the compound of formula III by Michaelis-Aranson reaction, reacting the resultant compound of formula IV with the compound of formula V to obtain the compound of formula VI, decomposing the compound with an acid, and finally reacting with formic acid in acetic anhydride to effect the N- formylation.

